

Claims

We claim:

1. A press arrangement for dewatering a pulp web in a machine for at least one of production and finishing of a pulp web, comprising:

at least one press nip formed by a lower press roll and an upper press roll arranged approximately above and pressed against said lower press roll;

at least one dewatering belt adapted to run above the pulp web through said at least one press nip, and to receive water expressed from the pulp web; and

a water receiving device positioned between said upper press roll and said at least one dewatering belt, said water receiving device comprising at least one suction channel projecting into a wedge-shaped area between said upper press roll and said at least one dewatering belt and extending along said at least one press nip to be transverse to the pulp web, and a connection to connect said at least one suction channel to a source of reduced pressure.

2. The press arrangement according to claim 1 wherein said at least one suction channel has a gap width of 1 to 50 mm at least in an initial zone of the at least one suction channel.

3. The press arrangement according to claim 2 wherein said at least one suction channel has a gap width of 2 to 7 mm at least in an initial zone of the at least one suction channel.

4. The press arrangement according to claim 1 wherein, at least in an initial zone of said at least one suction channel, there is a reduced pressure of 50 to 80,000 N/m².

5. The press arrangement according to claim 1 wherein, at least in an initial zone of said at least one suction channel, there is a reduced pressure of 10,000 to 30,000 N/m².

6. The press arrangement according to claim 1 including a collecting tank connected to said at least one suction channel that receives and transports away water aspirated into said at least one suction channel.

7. The press arrangement according to claim 6 wherein said at least one suction channel includes a mouth which is positioned above a maximum water level of said collecting tank, and said collecting tank includes said connection to connect said at least one suction channel to said source of reduced pressure, said connection being positioned above the maximum water level.

8. The press arrangement according to claim 1 wherein said at least one suction channel comprises an upper channel wall and a lower channel wall extending along the at least one press nip to run transverse to the pulp web, said upper channel wall and said lower channel wall extending at an acute angle to said at least one dewatering belt at least in an initial zone of the suction channel.

9. The press arrangement according to claim 8 wherein said lower channel wall includes an edge, and said edge is positioned close to said at least one dewatering belt.

10. The press arrangement according to claim 9 wherein said edge of said lower channel wall is positioned less than 20 mm from said at least one dewatering belt.

11. The press arrangement according to claim 8 wherein said lower channel wall includes an edge, and said edge touches or is immersed in said at least one dewatering belt.

12. The press arrangement according to claim 11 wherein the edge of the lower channel wall comprises a wear-resistant strip.

13. The press arrangement according to claim 12 wherein said strip forms an angle of between 10 and 45° with said at least one dewatering belt.

14. The press arrangement according to claim 8 wherein said upper channel wall is part of a water capture device for water thrown off from said upper press roll above said at least one suction channel.

15. The press arrangement according to claim 14 wherein the upper channel wall includes a surface of said at least one suction channel outside said at least one suction channel, said surface extending at an incline to said at least one press nip, the upper channel wall including an edge projecting into the wedge-shaped area at least slightly less than an edge of the lower channel wall.

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16. The press arrangement according to claim 8 wherein said upper channel wall includes an edge projecting into the wedge-shaped area exactly as far as or further than the lower channel wall.

17. The press arrangement according to claim 6 wherein said collecting tank is divided into a plurality of chambers extending along the at least one press nip and transverse to the pulp web, each of said plurality of chambers including a connection for the source of reduced pressure.